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# Agricultural Situation

APRIL 1951

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Editor: Wayne Dexter

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# *A Letter* TO CROP REPORTERS

I'D LIKE to tell you folks who report on crops, livestock, or prices, a little about your State agricultural statistician.

He's the man who sends you a "schedule" or questionnaire every so often, about crop progress or other farm conditions. He's hired for one reason—because he's a good statistician who knows agriculture in your State. Everyone looks to him for the current facts on the State's agricultural production.

In many States, he represents the State's Department of Agriculture, as well as the Federal Bureau of Agricultural Economics in gathering agricultural data and making it public in timely reports. Wisconsin was the first State to start this cooperative Federal-State arrangement, in 1917. That way, the State government can also get the figures it needs without wasteful duplication between the State and Federal Government. And the United States Department of Agriculture can get figures from different States that fit to-

gether into national totals. What's more, you are saved the extra bother of getting two sets of questionnaires—one from the State and one from the Federal Government.

The collection of this kind of information was actually started in a small way over 100 years ago—in 1839. As an organized, continuing public service, however, it stems mainly from Civil War days, as one of the first functions of the newly established United States Department of Agriculture in 1862.

There's one way you can help greatly in holding down the cost of getting this essential information. That's by filling in as much of your schedule as you can, and returning it as soon as you can. If your State statistician has to send out one or two reminders to get back enough questionnaires for a good estimate, it makes the work cost that much more.

S. R. Newell

*Chairman, Crop Reporting Board  
Bureau of Agricultural Economics, USDA*

## *Outlook* Highlights

... APRIL 1951

### **Buying Spurt Eases**

Consumers seemed to be applying the brakes to their buying in early March. During the preceding 2 months, consumer purchasing had been running at a rate similar to that following the outbreak of the Korean War last summer.

A slow down in the price advance probably accounted for some of the let up in consumer purchases. Wholesale prices stabilized in February and early March while retail prices rose at a slower pace. Earlier, the belief that prices would continue upward was widespread—a belief that tends to stimulate buying.

Plentiful supplies of consumer goods in retail markets also helped slow down the rate of buying. Production of both

durable and nondurable goods continues near record levels and stocks in retail stores remain high despite heavy buying.

Large supplies and a slackening in consumer buying may take some of the upward push out of prices in the next two or three months. Over the longer-run, however, inflationary pressures are likely to strengthen. Restrictions on the use of materials for the production of civilian goods is likely to reduce production of these goods. At the same time, consumer incomes will rise as the tempo of the defense program quickens, thus strengthening demand.

### **Prices Received Down**

Prices received by farmers averaged lower in mid-March than a month earlier, the first drop since last October. The slight decline largely resulted from lower prices for truck crops, food grains, hogs, and dairy products. Gains during the month were registered by wool, eggs and poultry, cotton and cot-

*(Continued on page 14)*

# Farmers' Plans and the Nation's Needs

**H**OW WELL do farmers' plans for the 1951 crop season fit in with the country's needs? To the individual farmer, this question boils down to "What changes shall I make in my plans, now that I know what other farmers plan to do?"

The farmer now knows much about what the other farmers were planning to do, if he has heard over his radio or read in his newspaper and farm magazines the Crop Reporting Board's prospective plantings report. For 28 years the Board has asked representative farmers all over the country to report on their individual plans as of March 1. After summarizing and analyzing all this information, the findings are published, so that farmers may perfect their final plans.

This year much interest centers on how nearly farmers' plans agree with acreage guides set up by the Department of Agriculture. Little was known on March 1 as to what these guides

might mean in a county or to an individual farmer. It was known, in general, that one of the country's biggest cotton crops will be needed in 1951; that with more livestock on farms and an increased demand for meat, more feed grains—corn in particular—would be needed; that, as a whole, crop production at a high level is needed. The acreage guides were designed to obtain these needed products without disrupting farmers' long-range plans.

Now that information on prospective plantings and acreage guides are reaching the farm level at about the same time, farmers can see at a glance what steps they can take to everyone's advantage. Prospects indicate that needed acreages of wheat, rice, dry beans, and flaxseed are already provided for; that some shifts from oats to barley may be advantageous; that even after a sharp reduction we may have more potatoes than needed, but that more sweetpotatoes could be prof-

## Prospective Plantings for 1951

Crop	Planted acreages			
	Average 1940-49	1950	Indicated 1951	1951 as per- cent of 1950
	<i>Thousands</i>	<i>Thousands</i>	<i>Thousands</i>	<i>Percent</i>
Corn, all.....	89, 481	84, 370	85, 694	101. 6
All spring wheat.....	18, 672	18, 509	21, 850	118. 1
Durum.....	2, 682	2, 814	2, 894	102. 8
Other Spring.....	15, 990	15, 695	18, 956	120. 8
Winter wheat.....	49, 540	52, 887	<sup>3</sup> 56, 103	106. 1
Oats.....	43, 510	46, 642	44, 191	94. 7
Barley.....	14, 281	13, 235	11, 413	86. 2
Flaxseed.....	4, 158	4, 064	3, 921	96. 5
Rice.....	1, 533	1, 620	1, 931	119. 2
Sorghums for all purposes.....	16, 024	16, 587	12, 540	75. 6
Potatoes.....	2, 625	1, 866	1, 590	85. 2
Sweetpotatoes.....	672	573	444	77. 5
Tobacco <sup>1</sup> .....	1, 613	1, 594	1, 745	109. 5
Beans, dry edible.....	2, 023	1, 632	1, 664	102. 0
Peas, dry edible.....	508	240	244	101. 7
Soybeans <sup>2</sup> .....	12, 266	14, 704	13, 772	93. 7
Cowpeas <sup>2</sup> .....	2, 043	1, 089	941	86. 4
Peanuts <sup>2</sup> .....	3, 666	2, 752	2, 614	95. 0
Hay, all <sup>1</sup> .....	74, 845	75, 741	75, 656	99. 9
Sugar beets.....	828	1, 013	887	87. 6

<sup>1</sup> Acreage harvested.

<sup>2</sup> Grown alone for all purposes.

<sup>3</sup> Estimate of Dec. 1 1950.



# How Intentions Compare With Guides

Crop	Guide acreage <sup>1</sup>	March intentions		Guide production	Indicated production <sup>2</sup>
		Acreage	Percent of guide acreage		
	<i>Thousand acres</i>	<i>Thousand acres</i>	<i>Percent</i>	<i>Million bushels</i>	<i>Million bushels</i>
Corn.....	90, 002	85, 694	95. 2	3, 375	3, 050
Oats.....	43, 727	44, 191	101. 1	1, 355	1, 404
Barley.....	13, 242	11, 413	86. 2	294	260
Sorghum grain.....	7, 295	6, 741	92. 4	146	120
Spring wheat.....	21, 697	21, 850	100. 7	-----	300
All wheat.....	77, 800	-----	-----	1, 150	1, 203
Rice.....	1, 900	1, 931	101. 6	<sup>3</sup> 41	40. 8
Dry edible beans.....	1, 632	1, 664	102. 0	<sup>4</sup> 15. 5	<sup>5</sup> 16. 6
Soybeans for beans.....	13, 013	12, 100	93. 0	273	233
Flaxseed.....	4, 000	3, 921	98. 0	36	36
Potatoes.....	1, 560	1, 590	101. 9	335	354
Sweetpotatoes.....	563	444	78. 9	-----	43. 2

<sup>1</sup> Sum of Adjusted State Guides.

<sup>2</sup> If 1951 yield on prospective acreage, by States, should equal 1945-49 average yields.

<sup>3</sup> Unit of production is 100-pound bag of rough rice.

<sup>4</sup> Unit of production is 100-pound bag of cleaned beans.

<sup>5</sup> Uncleaned basis.

itable; that a heavier cut was made in planned soybean acreage than necessary. But most serious of all, it appears that we may be short on corn and sorghum grain acreage.

Looking at the prospective acreages in the preceding table it is apparent that farmers plan to hold their hay acreage relatively high, virtually the same as in 1950. They wish to continue current programs involving livestock, grasslands, and proven profitable cash crops such as soybeans, flaxseed, peanuts, and tobacco. They are reluctant, with the farm labor situation apt to become tighter, to cut down on small grains in favor of corn and sorghum grain.

Weather during the next few weeks, as always, will be a major deciding factor in the degree to which current plans are carried out. If excessive spring rains should make it impractical to seed the prospective acreage of small grains, much of that acreage would be shifted to corn, soybeans, and sorghums. Machinery now available appears ample for the present and must be relied upon to offset the loss of labor. Seed supplies are ample.

Prospective acreages of cotton are not surveyed nor estimated at this time because of legal restrictions. It is apparent, however, that growers are keep-

ing in mind well-known needs for a large 1951 cotton crop. This is apt to bring back into cultivation most of the land in the Cotton Belt which was not cropped in 1950. The acreage upon which all crops will be planted or grown in 1951 is about 366 million acres, more than in any year since 1933, except in 1949. The fact that it is about 4 million acres less than in 1949 would tend to indicate that if efforts were made to utilize cropland to the maximum extent, acreages of the needed feed grains—corn and sorghum grain—might be built up to guide levels without serious reduction in grassland, small grain nurse crops for grasses, or in cash crops. Furthermore, if loss of winter wheat acreage should be greater than now indicated, such acreage could be replanted to feed grains.

Farmers now have the necessary information to perfect their plans. Prices and the defense situation present the incentives to a season of tremendous production, weather permitting. It will be interesting to see what the Crop Reporting Board's July survey reveals as to how well farmers have adjusted their acreages to 1951 needs.

Harold R. Walker  
Charles E. Burkhead  
*Bureau of Agricultural Economics*

# Short-Term Farm Debt Rising

**T**HE SHORT-TERM debt owed by United States farmers amounted to about 6 billion dollars at the beginning of 1951, about the highest level ever reached since the peak levels of the early 1920's. Short-term farm debt also exceeded the farm mortgage debt, estimated at 5.9 billion dollars.

Farmers obtain short-term loans from two general types of lenders. The first group is miscellaneous lenders such as individuals, merchants, and dealers. The amount owed to these lenders on January 1 is estimated at 2.6 billion dollars.

The other group is made up of the principal institutional lenders such as commercial banks and the federally sponsored lending agencies who regularly report their outstanding farm loans. Short-term debts farmers owed these lenders on January 1 amounted to about 3.4 billion dollars. If the rise during the current crop season is of the usual proportion, the short-term debts farmers owe these institutions this summer should approach the peak level of 3.9 billion dollars outstanding in 1920.

These estimates of the short-term debt do not include loans made to farmers under price-support programs.

### A Postwar Increase

The short-term debt owed by farmers to institutional lenders has increased since the mid 1930's except for the World War II period. During the war, the debt changed little except for seasonal movements. During those years, when this debt was about half the current level, farm and home equipment and many farm supplies were in short supply and purchases were restricted. Further, the depressed 1930's were still fresh enough in the minds of many borrowers and lenders to cause them to be somewhat cautious in the use and extension of credit.

Beginning with the end of the war in 1945, however, the use of short-term credit by farmers started to rise. As

industry shifted to peacetime goods, purchases by agriculture for both production and consumption purposes climbed steeply. The price level was high and rising, farm production continued near record levels, agricultural prices increased further, and many farmers were willing to borrow to make desired expenditures. The short-term debt of farmers to the major institutional lenders rose from 17 to 18 percent in each of the next 3 years, reaching 2.7 billion dollars by the end of 1948.

In 1949 when many farmers had satisfied their more immediate needs for equipment and building materials and when income prospects appeared less favorable, the rise in short-term credit began to slow up. During 1949 this debt increased only about 5 percent.

### Upsurge After Korea

About the time of the Korean outbreak in June 1950, however, a new upsurge in credit use began and by the end of the year the short-term debt to banks and federally sponsored agencies had risen about 20 percent above January 1, 1950.

The Korean situation brought in several new factors that stimulated the use of short-term credit. Farmers in general feared the recurrence of wartime shortages and expected substantially higher prices for the things they would need to buy. Further, they became more optimistic as to the outlook for prices of farm products and many farmers did not hesitate to increase their debts to acquire goods for future needs as well as to expand production to take better advantage of the anticipated rise in agricultural prices. Farmers' purchases included not only goods for production but also automobiles, household equipment, and other consumer goods. In addition, the likelihood during the early fall of 1950 of a large quantity of unmarketable soft corn contributed to the greatly increased purchases of feeder cattle in the Corn Belt.

All regions participated to varying degrees in the recent credit expansion. In midwestern States where there was a great increase in the number of livestock on feed, some lenders reported that the expansion in short-term debt during 1950 was as much as 50 percent. The large volume of lending by production credit associations in January and February, if representative of lenders in general, indicates that a widespread credit rise is continuing into 1951. There are signs that credit will play an important part in the expected large increase in acreage planted to cotton in the South and West.

In comparing short-term debts with the farm mortgage debt it should be remembered that the short-term debt expands and shrinks comparatively quickly. Crop production loans usually call for repayment during the same year in which they are made. Even loans made for the purchase of farm machinery and basic livestock ordinarily are paid within 2 or 3 years. This short-term debt has a relatively fast turnover and is particularly sensitive to changes in production costs, market outlook, and income conditions.

The heavy feeder cattle loans in the midwest will probably be largely repaid this year, and many repayments also will be made on loans incurred during the past several years for capital additions. If the farm outlook should turn less favorable, new borrowing for farm production and for the purchase of farm supplies and equipment would be

curtailed. Further, if some areas should experience substantially lower incomes many of the short-term loans which require heavy repayments would be funded into longer term mortgage loans.

Despite these potential forces which might reverse the upward trend of short-term farm debt it is probable that for 1951 at least, factors tending to maintain a high volume of such debt will continue strong. Some downward adjustment in short-term debt may be expected to eventually occur and it could be substantial if agricultural conditions became severely depressed.

It is likely, however, that the use of short-term non-real-estate credit will remain more important—relative to farm-mortgage credit—than in prewar years. The volume of machinery, equipment, and livestock is becoming a larger proportion of the total farm investment. Further, farms are less self-sufficing and cash costs of gasoline, oil, machinery repairs, and feed are relatively heavier now than before the war. These production costs and expenditures for non-real-estate capital are more generally financed with short-term credit than with mortgage credit. Although these expenditures vary from time to time it is probable that the long-time trend towards more specialization and commercialization in agriculture will require large amounts of short-term financing.

Lawrence A. Jones  
*Bureau of Agricultural Economics*

## ***Sweetpotatoes Need Gentle Treatment***

*The sweetpotato is too thin-skinned for the handling it sometimes gets when it is being harvested. Bruises, cuts, and scrapes received by sweetpotatoes at digging time result in poor keeping quality.*

*Studies of different implements used showed that the best way to avoid injuries is to dig the crop with an ordinary 16-inch turning plow.*

*When the so-called rod-wing middlebuster was used, about as many sweetpotatoes were lost as with the turning plow but more were damaged from skinning. An ordinary 12-inch turning plow and a middlebuster without wing rods did an intermediate job. Poorest results came from the regular digger designed for harvesting white potatoes. When most of the shakers were removed, however, the digger did a fairly good job.*

*During picking, sweetpotatoes suffered least damage when they were put directly into storage crates. Throwing into heap rows and then into crates was slightly less satisfactory. Results were poorest when the sweetpotatoes were picked into sacks.*



1941 and 1951

# The Forest Products Situation

THE FOREST products situation as we enter this period of emergency is different in many respects from what it was when we entered World War II. In some ways it is better, but in others it is worse.

Ten years ago a shortage of forest products was not considered by the planning agencies. They were busy finding ways in which lumber and other forest products could be substituted for other materials. It was not until after we were well into the war period that they recognized the critical nature of forest products. By that time it was too late to take many of the steps necessary to hold production up and conserve inventories.

Today the relation between forest products supplies and requirements is known to be acute, and already lumber, softwood plywood, wood pulp, and converted paper and board products are on the N. P. A. list of critical products.

We entered World War II with an inventory of lumber in producers' and distributors' hands of about 18 billion board feet. Today we have something over 10 billion board feet—not more than enough to provide a regular flow from producer to consumer. We have no surplus stocks.

## Manufacturing Facilities

We are better off than we were 10 years ago in terms of manufacturing facilities. Lumber manufacturing capacity is always adequate. Pulp and paper producing facilities have been expanded substantially, and the capacity of the softwood plywood industry is about double what it was at the beginning of World War II. But consumption, even with this added capacity, has been taking all the pulp, paper, and plywood that can be made.

We are not as well off in terms of raw materials as we were at the beginning of World War II. The drain of saw timber continues to exceed growth. Over-all, the stand of saw timber in the United States is believed to have declined about 7 percent since 1945,

and continued heavy cutting for emergency needs will result in a continuation of this decline. The reduction in the supply of softwoods will be greater than for hardwoods, and the reduction will be most severe for the most important softwood species.

Many of the forestry measures needed to establish a balance between growth and drain could not be effective in helping the forest situation in a short time, but if the emergency should be of long duration these effects would be realized. In some regions a crop of pulpwood can be produced in 20 years.

## Shortages Expected

If the pattern of World War II is repeated in the present emergency period it is easy to foresee a shortage of most forest products. Losses in key manpower, shortages of equipment and supplies, and a scarcity of readily accessible timber will probably prevent production from holding up to needed levels. Even with severe restrictions on civilian use the increasing needs for military purposes may be hard to meet.

If there is any conceivable advantage in having periods of emergency follow in rapid succession it is that the experience gained in one is a valuable guide in preparing for the next. Today the planning agencies are not trying to find ways of using forest products in place of other materials. Instead they are concerned with ways of maintaining production, of building up inventories, and of limiting civilian consumption to only the most essential uses.

The results of this planning and the action expected to follow it should result in a more orderly pattern of production, distribution and use of forest products than there was during the first years of World War II. But even the most careful planning cannot counteract forces that apparently will cause requirements to exceed new supply by considerable margins. Shortages must be expected.

What does this mean to the American farmer? He will be affected in two ways: as a consumer of forest products and, in many cases, as a producer of timber.

As consumers, American farmers normally use about 5 billion board feet of lumber annually for new houses and farm buildings and for maintaining those in place. Another billion feet of lumber and large quantities of veneer are used in packaging fresh fruits and vegetables. Paper, paper board, and converted paper products find a variety of uses on the farm. Plywood is gaining in use. Fence posts and fuel wood are used in large quantities, but most of these can be produced on the farm, and market shortages are not of great importance.

The farmer may expect that his use of forest products on the farm will be limited by control orders, and that he will pay high prices for the materials he does get.

But the farmer is probably better prepared to enter a period of restricted lumber use than he was 10 years ago. At that time he was just coming out of a long period of depression, low income, and postponed building and repair. Today he is in a period of good crops, high prices, and relatively high income, and part of this income has been used to build up the farmstead. He can, if necessary, postpone all but the most essential new building and repair.

### Producers to Benefit

As a producer of timber the farmer should benefit in a period of emergency. The high requirements for forest products will mean high prices for his timber. Most farm forests are served with good roads, and the ready accessibility of the farmers' timber will add to its value.

The farmer who can do his own logging will be in the best position. He may be able to dispose of some of the low-grade hardwoods he wants removed from his stand. He may find a profitable market for thinnings so that he can open up his stand for faster growth. And his crop trees are sure to be needed.

The farmer can help himself financially and further the defense program if he makes sure the timber he sells goes into the most important uses. He cannot always do this—he cannot follow the lumber made from his logs to the final user. But if he has some oak trees suitable for ship keels or ribs he should seek to sell them for such purposes and not cut them into railway ties.

Many of the species in short supply are found in farm forests. Logging individual trees for their highest use usually means logging them for the best market. Cutting individually selected trees for specialty markets is usually worth while. And the selection of such trees from farm forests may be necessary to balance supply with emergency needs.

### Keep Growing Stock

Although large quantities of timber from farm forests will be needed to balance supply with requirements during the emergency, the farmer should not make the mistake of logging or selling all his standing timber. He should retain as growing stock the young thrifty trees that are adding growth rapidly and increasing in quality. He may receive tempting offers for such timber but he will do himself and the country a disservice if he permits the cutting of trees that have not reached the best size for harvest. Small trees take more equipment and more manpower per thousand board feet for logging and manufacture than large trees do, and both manpower and equipment time will need to be conserved in an emergency period. Equally important is the preservation of young growing stock to meet future timber needs.

Demand for timber will probably be at a high level for many years to come. The farmer will not be sacrificing his last chance for a profitable sale if he holds the young second-growth trees needed as growing stock to produce tomorrow's crop trees.

Ralph W. Marquis  
*Forest Service*

## Key Role for Pastures

# Grasslands in the Emergency

**I**MPROVEMENT of our grasslands can play a key role during the National emergency from the standpoints of both the Nation and the individual farmer.

On many of our farms, cropping systems which include improved pastures will provide more feed nutrients for livestock per acre at a lower cost per unit than any other system of farming. Hay and pasture are soil building crops. When used in proper balance in the cropping system, they will permit production of soil depleting crops to be kept at high levels while the soil is being maintained and improved.

Although research on pasture and other forage crops has lagged behind that for most other farm crops, considerable headway has been made in recent years. If the improved plant materials and the latest production and management practices were widely adopted, feed production from many pastures could be increased several-fold. Over the long-run, proper attention to grassland crops could result in striking increases in the productive capacity of the Nation's agriculture.

### Two Types of Practices

Improved practices for establishing and utilizing pastures fall into two main groups: (1) those concerning pastures used as part of the crop rotation, and (2) improvement of pastures that are not a part of the crop rotation. Renovation is the most important advancement in recent years in the improvement of pastures. Renovation means the establishment of high producing grasses and legumes in permanent pastures without plowing.

Use of pastures as part of the crop rotation has become more extensive as the result of research. For these pastures productive grass and legume species, intensive fertilization, and grazing management are emphasized. In humid and irrigated areas, Ladino clover is being used more and more extensively. This giant variety of

white clover probably has contributed more than any other single thing to increased use of high producing pastures in crop rotations.

Ladino clover is used with brome-grass through much of the Northern latitudes of the humid area. The orchard grass-Ladino clover mixture has proved most successful in the middle latitudes, while tall fescue-Ladino clover is now being used extensively in the Southern part of the United States for late fall, winter, and spring grazing.

### Other Combinations

Other new pasture combinations include alfalfa-smooth brome-grass and brome-grass-Ladino clover-red clover-alfalfa. For irrigated pastures, the newer mixtures contain orchard grass, Ladino clover and in some cases, tall fescue, brome-grass, red clover, and alfalfa.

Other new species and combinations also are coming into use in the South. Use of Pangola grass, a recent introduction, is increasing rapidly in subtropical areas. Sweet blue lupine and reseeding types of crimson clover are receiving attention for winter grazing while early hairy indigo, perennial lespedeza, and new introductions of Bahia grass hold promise for increasing summer production of pastures.

Johnson grass, a scourge of the cotton fields, has at last yielded to man's domination. It is now an important pasture crop providing summer production in mixtures with rough peas and other reseeding winter legumes. Coastal Bermuda grass, another development, also is being used increasingly in the South.

Recently, there has been a trend toward use of simpler seed mixtures in establishing pastures. These usually consist of a minimum of one grass and one legume, and ordinarily not more than four or five species in all. In older mixtures, a dozen or more species were not uncommon. Research has contributed to this trend by providing information on the specific adaptation



and use of each species. No longer is it necessary to seed several in the hope that two or three will be adapted. Also it has become evident that a single pasture cannot meet all grazing needs adequately throughout the season. Instead, more specific combinations of species are being used for differing conditions and to provide pasturage at various seasons.

Along with the use of more simple mixtures and increased care in seed bed preparation, seeding rates have been reduced. At one time, the total seed mixture might be applied at the rate of 25 to 30 pounds per acre. Now, recommended rates may be as low as 4 to 5 pounds per acre. Reduced seeding rates lower costs of establishing pastures and stretch seed supplies.

A second major advance in the improvement of rotation pastures in recent years is recognition of the need for adequate fertilization. Experiments have shown that large initial applications of fertilizers are needed to establish pastures satisfactorily. Applications should be continued after establishment to replace the nutrients removed.

Heavy use of fertilizers along with improved varieties of pasture grasses results in greater production of livestock products in numerous areas. Experimental evidence indicates that gains of 400 pounds of beef cattle (live-weight) per acre per year are possible in many areas in the South where less than 100 pounds are obtained from unimproved pastures. Tests on a pasture of Coastal Bermuda grass have resulted in gains of 530 to 569 pounds of beef per acre. In the latter case, 2,500 pounds of hay was harvested as well.

### Profits Up

With prices of livestock at the levels of recent years, net returns in some areas have been greater from farms on which pastures have been improved and the acreage increased, than from cropland farms.

For pastures that are not part of the crop rotation, renovation has proved to be the most effective means of improvement. There are four essential steps in renovating pastures of the cool, humid areas: (1) adequate tillage to subdue existing vegetation and provide

a seed-bed, (2) application of needed quantities of lime and mineral fertilizers, (3) seeding with an adapted mixture of grasses and legumes, and (4) grazing management to facilitate establishment of young seedlings.

Permanent pastures are usually on soils that have been depleted or are steep, stony or otherwise unsuited for plowing. The tillage implements used should tear up the existing sod but leave most of the plant residues on or near the surface. Ordinary farm disks are commonly used. One of the most effective tools is the bush-and-bog harrow. This is a heavy cutaway disk capable of cutting and tearing tough sod even on stony soils. Thoroughness with which the existing vegetation is killed or weakened is usually important in determining the effectiveness of renovation.

### Fertilize During Tillage

Adequate supplies of lime and fertilizer are required for establishment and productivity of renovated pastures. Since lime and phosphorous move very little in the soil, top dressing results in concentrations in the soil surface. Therefore, application during tillage is advantageous since it distributes the fertilizer in the soil.

The combinations of species, seeding rates and planting dates used in renovating permanent pastures in the cool, humid areas are generally the same as those used in rotation pastures. These include orchard grass, brome grass, alfalfa, Ladino clover, and red clover.

Renovation of permanent pastures has resulted in striking increases in production. In tests on well-fertilized, productive Kentucky bluegrass-white clover pastures, renovation has resulted in yield increases of 28 to 63 percent over similar unrenovated pastures which received the same fertilization. Furthermore, the renovated pasture produced relatively more of the total yield in early spring, midsummer, and late fall. Where depleted poverty grass or broom sedge pastures have been renovated, even more striking increases in production have been obtained.

Another type of renovation that has come into use in the middle latitudes involves the establishment of annual lespedeza in Kentucky bluegrass pas-



tures. With proper management practices, lespedeza maintains itself by natural reseeding. The bluegrass is grazed closely during the spring to limit competition with the young lespedeza seedlings. Midsummer grazing is supplied by the lespedeza which naturally grows best at that season. In the fall, grazing is controlled to permit reseeding of the lespedeza. For best production of this combination, lime and fertilizer requirements must, of course, be supplied.

### Use Winter Legumes

Winter legumes are established in summer grass sod in a similar manner in areas of the South where summer legumes are not available or are difficult to maintain. The legumes now most commonly used for this purpose are reseeding varieties of crimson clover and the bitter or sweet lupines.

For establishment of crimson clover in Bermuda grass, dallis grass or Bahia grass pastures, heavy fall grazing, and

usually some tillage with a disk is used. By restricting grazing in the spring, the crimson clover reseeds. Some tillage usually is necessary each fall to facilitate reestablishment of the crimson clover. This practice offers two advantages; (1) winter grazing when the summer grasses are dormant and (2) improved growth of the summer grasses resulting from the nitrogen provided by the winter legume and, in the case of Bermuda and Bahia grasses, from the tillage itself.

### Lupines Provide Nitrogen

Lupines provide an abundant supply of nitrogen for subsequent growth of the grass. In addition, the sweet varieties will provide winter grazing. In experimental trials, lupines have been established successfully in Bermuda and Bahia grass sods by drilling.

W. M. Myers  
*Bureau of Plant Industry, Soils, and  
Agricultural Engineering*

## Cattle Like Dehydrated Sorghum

**D**EHYDRATING sweet sorghum, a new processing of an old crop, promises a better way of feeding one of the best forage crops in the central Great Plains.

Much of the sugar in the sorghum stalk is lost when the crop is cured into fodder or made into silage. Imported black-strap molasses is often added to sorghum fodder to increase the palatability and energy value of the roughage, or is used in mixed-feed supplements. Research has shown that sorghum retains its natural sugar when the entire crop is dehydrated. This reduces the need for molasses. The dehydrated product may have 30 percent or more of sugar and is as sweet as cookies.

Several commercial companies in Kansas are already dehydrating and pelleting sweet sorghums. They use alfalfa dehydrating equipment. By adding sorghum to their operations, dehydrators can do double duty. The equipment is in use with alfalfa for less than 3 months a year—late May

to August. Sorghum can be dehydrated until into October.

The recent introduction of improved varieties by sorghum breeders of Kansas and the United States Department of Agriculture is contributing heavily to this new development. Several new sorgo varieties are especially sweet and are ideal for dehydration. They range from early to late in maturity. Early varieties, such as Ellis, mature in August, but the later varieties such as Kansas Collier and Kansas Sourless, mature in September and October.

Sorghum pellets are nutritious and palatable to cattle. They are particularly valuable when other feeds containing protein and mineral supplements are added to the dehydrated sorghum meal before pelleting. Dehydrated sorghum meal pellets are easy to handle, store, and transport. They can be handled in bulk like grain. Their low moisture content makes them highly resistant to insect damage.

# American Cheese Industry

## A Growing Market for Milk

**T**HE AMERICAN cheese industry is a lot different than it was 30 years ago.

Today, the industry is much bigger. According to a study made under the Research and Marketing Act, it turned out nearly four times as much American cheese in 1949 as in 1920 and the proportion of the national milk supply made into American cheese more than doubled. The bulk of the cheese made in this country is known as American cheese. Cheddar is by far the most important type.

The industry has become more decentralized from the standpoint that production of American cheese is now spread more evenly about the country. It has become more centralized in the sense that the number of factories has declined, particularly in recent years, while output per factory has increased.

These developments reflect changes in the way our milk supply is used. Accordingly, they have affected farmers' markets for milk.

### Drop In Two Areas

The decentralization of cheese making has resulted in sharp reductions in the shares of total national cheese production from two regions—the East North Central and the North Atlantic. It also has resulted in sharp gains for two other regions—the West North Central and the South Central.

In the 1920's the East North Central region produced 75 percent of the American cheese made in this country with Wisconsin alone producing 71 percent. Although the region's production more than doubled from the 1920's to the 1940's, its share of the national output dropped to 63 percent while Wisconsin's proportion fell to 47 percent.

The North Atlantic States is the only region in the country in which output of American cheese actually declined from the 1920's to the 1940's. The region's share of the national total

dropped even more sharply—from 12 to less than 4 percent.

The increase in the shares produced in the West North Central and the South Central States about equalled the decline in the above two regions. Output in the West North Central region in the 1940's was 10 times what it was in the 1920's, and the region's share of the total production jumped from 3½ to 13 percent. The increase in the South Central States' share was even greater, rising from less than 1 to 11 percent.

### Gain About Average

In the other two regions, the Western and the South Atlantic, output of American cheese rose at about the same rate as for the country as a whole. The Western region produced 9.2 percent of all American cheese in the 1920's and 8½ percent in the 1940's. The South Atlantic region produced less than 1 percent of the total in both decades.

Shifts in the production of American cheese among the regions in the last three decades reflects changes in the way our milk supply is used. Part of the milk now going into cheese would have been used for making butter in the 1920's. In all regions except the North and South Atlantic, production of creamery butter was lower in the 1940's than it was in the 1920's.

On the other hand, some of the milk that would have gone into cheese in the 1920's is now being sold to consumers in fluid form. The population of cities has increased and consumption of milk per person has gone up. Improvements in transportation have lengthened the distance that milk can be hauled to cities. As a result, farms in some areas which formerly depended on cheese factories as an outlet for milk now ship milk into fluid markets. Dairy farms in New York and California have been particularly affected by this development.

Improvements in transportation also have affected the size and location of

cheese factories. When most farmers depended on horse-drawn vehicles, cheese factories had to be located within a maximum of about 4 miles of the farms from which they obtained milk. With motortrucks now common, factories can draw on a much larger area. Deliveries from points 40 miles away are not unusual. As a result, cheese factories can be located in areas in which dairy farms are more scattered than was possible in the 1920's.

Increased use of trucks has encouraged the spread of the American cheese industry. It also has played a part in the trend toward fewer but bigger factories and greater output per factory. Other factors also have contributed. Increased production of American cheese has meant that many plants were more fully utilized. Most of the older factories still in business have been enlarged and the new plants

have greater capacities for producing cheese than in earlier years.

The number of American cheese plants has gone down steadily during most of the last decade. In 1949 there were only 1,682 compared with 2,464 in 1942. On the other hand, the annual output per factory rose from 372,000 pounds in 1942 to 556,000 in 1949. The trend toward fewer factories and greater output per factory occurred in every region.

All in all, the trends in the American cheese industry in the last three decades have added up to a bigger market for milk. In 1949, the industry produced 928 million pounds of cheese compared with 255 million pounds in 1920. This gain was considerably larger than for milk production. Consequently, production of American cheese in 1945-49 took 7.4 percent of milk supply compared with 3.6 in 1924-28.

## Castor Beans: A New Cash Crop

**C**ASTOR BEANS will make a debut as a cash crop in the United States this year.

Production of this strategic oilseed crop is being encouraged by a program undertaken by the Commodity Credit Corporation at the request of the Munitions Board. The program will be open to farmers who enter into contracts with the CCC, or with private companies under contract with CCC. Harvesting machinery and technical guidance will be available to contracting farmers.

Plans call for the planting of about 20,000 acres on irrigated land in Arizona and California, 4,000 acres of irrigated land in Oklahoma and 52,000 acres of dry land in Oklahoma and Texas. The exact acreage will depend on the amount of pure seed of adapted low-growing annual varieties available.

Castor oil is in demand for military purposes, mainly for use in lubricating oil and special plastics. In addition, dehydrated castor oil is a quick-drying oil that is used in protective coatings.

Production under the program is expected to produce a maximum of about

78 million pounds of castor beans. This would yield about 34 million pounds of oil plus enough selected seed for planting next year's crop. Prices paid farmers for castor beans grown under contract will be about 10 cents a pound, hulled basis, or the market price at the time of delivery, whichever is higher.

Brazil provides most of the castor beans, or oil, used in this country. This year's Brazilian crop is expected to total about 220,000 tons, much larger than the 143,000 tons produced in 1950 but about the same as the 1949 crop. In the last half of 1950, the United States imported about 67,000 tons of castor beans, or the equivalent in oil.

Production of castor beans for seed in this country was encouraged by a program in effect in 1941-43. The need for domestic castor beans did not materialize and the program was discontinued in 1944. However, experimental work was continued by the Agricultural Research Administration and a private company. It is because of this work that pure seed is available for planting this year.



# Prices of Farm Products

[Estimates of average prices received by farmers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and State]

Commodity	5-year average		Mar. 15, 1950	Feb. 15, 1951	Mar. 15, 1951	Effective parity prices Mar. 15, 1951 <sup>2</sup>
	Base period price 1910-14 <sup>1</sup>	January 1935- December 1939				
Basic commodities:						
Cotton (pound).....	cents. <sup>2</sup> 12.4	10.34	28.05	41.75	42.73	33.60
Wheat (bushel).....	dollars. 3.884	.837	1.98	2.21	2.12	2.40
Rice (cwt.).....	do. 1.97	1.65	4 4.34	5.83	5.79	5.52
Corn (bushel).....	do. <sup>2</sup> 3.642	.691	1.19	1.60	1.60	1.74
Peanuts (pound).....	cents. <sup>2</sup> 4.8	3.55	10.5	10.9	10.8	13.0
Designated nonbasic commodities:						
Potatoes (bushel).....	dollars. <sup>2</sup> 1.12	.717	1.32	1.03	1.07	<sup>6</sup> 1.79
Butterfat (pound).....	cents. 27.2	29.1	62.4	70.3	69.7	76.2
Milk, wholesale (100 lb.).....	dollars. 1.70	1.81	3.81	4.64	4.51	4.76
Wool (pound).....	cents. 20.0	23.8	4 52.4	109.0	119.0	56.3
Other nonbasic commodities:						
Barley (bushel).....	dollars. <sup>2</sup> 6.19	.533	1.10	1.33	1.34	<sup>6</sup> 1.51
Cottonseed (ton).....	do. 26.10	27.52	43.00	100.00	103.00	73.10
Flaxseed (bushel).....	do. 1.67	1.69	3.56	4.49	4.59	4.68
Oats (bushel).....	do. <sup>2</sup> 3.399	.340	.723	.919	.909	<sup>6</sup> 9.72
Rye (bushel).....	do. <sup>2</sup> 7.20	.554	1.21	1.58	1.57	<sup>6</sup> 1.76
Sorghum, grain (100 lb.).....	do. <sup>2</sup> 1.21	1.17	1.93	2.18	2.12	<sup>6</sup> 2.95
Soybeans (bushel).....	do. 1.00	.954	2.25	3.08	3.10	2.80
Sweetpotatoes (bushel).....	do. .908	.807	4 2.24	2.05	2.07	2.54
Beef cattle (100 lb.).....	do. 7.02	6.56	21.00	29.00	29.70	19.70
Chickens (pound).....	cents. 11.1	14.9	23.8	26.9	28.9	31.1
Eggs (dozen).....	do. <sup>2</sup> 21.5	21.7	31.6	41.4	43.7	<sup>6</sup> 52.5
Hogs (100 lb.).....	dollars. 7.57	8.38	16.10	22.00	21.20	21.20
Lambs (100 lb.).....	do. 7.71	7.79	23.70	33.30	33.30	21.60
Veal calves (100 lb.).....	do. 7.89	7.80	24.40	33.30	33.50	22.10
Oranges, on tree (box).....	do. <sup>2</sup> 2.29	1.11	2.69	1.89	1.94	<sup>6</sup> 3.67
Apples (bushel).....	do. 1.02	.90	1.92	2.07	1.97	2.86
Hay, baled (ton).....	do. 8.58	11.20	21.20	23.20	23.10	24.00

<sup>1</sup> Adjusted base period prices 1910-14, based on 120-month average January 1941-December 1950 unless otherwise noted.

<sup>2</sup> Parity prices are computed under the provisions of title III, subtitle A, section 301 (a) of the Agricultural Adjustment Act of 1938 as amended by the Agricultural Acts of 1948 and 1949.

<sup>3</sup> 60-month average, August 1909-July 1914.

<sup>4</sup> Revised.

<sup>5</sup> 10-season average 1919-28.

<sup>6</sup> Transitional parity, 90 percent of parity price computed under formula in use prior to Jan. 1, 1950.

## Outlook Highlights

(Continued from page 2)

tonseed, and meat animals other than hogs.

Prices paid by farmers including interest, taxes, and wage rates continued to rise from mid-February to mid-March with a gain of about 1½ percent. Most of the rise was due to higher prices for food, clothing, and motor vehicles.

With prices received going down and price paid rising, the parity ratio dropped slightly. Farmers' prices as a group now average 11 percent above parity.

### Production Record Likely

Farmers may set a new production record this year. The outlook is that the amount of agricultural commodities produced for sale or consumption in the farm home this year is likely

to exceed the 1949 peak if the weather is average or better. Output in 1949 was 40 percent above prewar.

The acreage on which the main farm crops are grown or planted this year may drop below 1949 but the decline is likely to be offset by further gains in the output of livestock and their products.

### Corn Receipts Heavy

Market receipts of corn from October through March were unusually heavy reflecting higher prices and increased demand. Large quantities have been withdrawn from loan stocks and Government holdings. On the other hand, the amount of corn going under price support has dropped sharply, totaling only about 40 million bushels through January compared with 205 million in the same period last year.

Feed grain prices weakened a little

(Continued on page 16)



# Economic Trends Affecting Agriculture

Year and month	Industrial production (1935-39=100) <sup>1</sup>	Total income of industrial workers (1935-39=100) <sup>2</sup>	Average earnings of factory workers per worker (1910-14=100) <sup>3</sup>	Wholesale prices of all commodities (1910-14=100) <sup>3</sup>	Index numbers of prices paid by farmers (1910-14=100)			Index numbers of prices received by farmers (1910-14=100)			
					Commodities	Wage rates for hired farm labor <sup>4</sup>	Commodities, interest, taxes, and wage rates	Livestock and products			
								Dairy products	Poultry and eggs	Meat animals	All livestock
1910-14 average.....	58	50	100	100	100	100	100	100	100	100	100
1915-19 average.....	72	90	152	158	149	147	148	147	153	162	157
1920-24 average.....	75	122	221	160	159	181	168	159	163	121	140
1925-29 average.....	98	129	232	143	151	184	161	161	155	145	152
1930-34 average.....	74	78	179	107	117	121	124	105	94	83	91
1935-39 average.....	100	100	199	118	124	121	125	119	108	117	115
1940-44 average.....	192	236	315	139	179	359	152	169	145	166	162
1945 average.....	203	291	389	154	177	387	189	230	194	207	210
1946 average.....	170	276	382	177	197	387	207	267	197	248	247
1947 average.....	187	328	436	222	230	419	239	272	219	329	287
1948 average.....	192	354	472	241	250	442	259	300	235	361	314
1949 average.....	176	325	478	226	240	430	250	251	219	311	272
1950 average.....	200	367	516	236	246	425	255	247	181	340	278
1950											
March.....	187	337	493	223	239	424	249	243	165	308	258
April.....	190	340	496	223	240	424	251	255	161	312	256
May.....	195	349	502	228	244	425	254	250	154	342	269
June.....	196	362	513	230	245	425	255	227	156	342	268
July.....	196	366	516	238	247	425	256	232	173	371	287
August.....	209	392	526	243	248	425	256	240	191	369	292
September.....	211	396	529	247	252	425	260	248	196	372	298
October.....	216	405	540	247	253	428	261	261	201	358	296
November.....	214	406	544	251	255	428	263	267	209	357	299
December.....	217	416	556	256	257	428	265	272	249	360	311
1951											
January.....	221	415	555	263	262	450	272	286	203	391	323
February.....	221	415	558	268	267	450	276	285	205	425	340
March.....	221	415	558	268	267	450	280	280	217	428	343

Year and month	Index numbers of prices received by farmers (1910-14=100)								All crops and live-stock	Parity ratios <sup>7</sup>
	Crops									
	Food grains	Feed grains and hay	To-bacco	Cotton	Oil-bearing crops	Fruit	Truck crops	All crops		
1910-14 average.....	100	100	100	100	100	100	-----	100	100	100
1915-19 average.....	193	161	183	175	201	126	-----	171	164	111
1920-24 average.....	147	125	189	197	155	157	* 152	162	150	89
1925-29 average.....	141	118	169	150	135	146	145	143	148	92
1930-34 average.....	70	76	117	77	78	98	104	84	88	71
1935-39 average.....	94	95	172	87	113	95	95	90	107	86
1940-44 average.....	123	119	241	133	170	150	164	145	154	101
1945 average.....	172	161	360	178	228	244	207	203	206	109
1946 average.....	201	196	376	237	220	250	182	227	234	113
1947 average.....	270	249	374	272	363	212	226	263	275	115
1948 average.....	250	250	380	270	351	174	214	252	285	110
1949 average.....	219	170	398	245	242	199	201	223	249	100
1950 average.....	224	187	402	280	276	200	185	232	256	100
1950										
March.....	224	174	389	236	220	193	168	215	237	95
April.....	227	151	385	242	239	206	205	225	241	96
May.....	230	190	387	246	248	195	178	223	217	97
June.....	218	190	388	251	254	207	182	225	247	97
July.....	220	195	387	278	267	211	200	236	263	103
August.....	224	193	399	311	293	200	164	239	267	103
September.....	221	194	422	336	303	217	126	243	272	105
October.....	219	188	426	327	300	207	138	238	268	103
November.....	224	192	428	346	351	194	188	257	276	105
December.....	233	202	436	339	366	202	211	258	286	108
1951										
January.....	240	214	442	347	374	192	324	275	300	110
February.....	254	222	440	351	379	204	333	283	313	113
March.....	245	221	437	359	386	202	265	276	311	111

<sup>1</sup> Federal Reserve Board: represents output of mining and manufacturing; monthly data adjusted for seasonal variation.

<sup>2</sup> Computed from data furnished by Bureau of Labor Statistics and Interstate Commerce Commission on pay rolls in mining, manufacturing, and transportation; monthly data adjusted for seasonal variation. Revised January 1950. <sup>3</sup> Bureau of Labor Statistics.

<sup>4</sup> Farm wage rates simple averages of quarterly data, seasonally adjusted.

<sup>5</sup> Revised. <sup>6</sup> Preliminary.

<sup>7</sup> Ratio of index of prices received to index of prices paid, interest, taxes, and wage rates. This parity ratio will not necessarily be identical to a weighted average percent of parity for all farm products, largely because parity prices for some products are on a transitional basis. <sup>8</sup> 1924 only.

# Outlook Highlights

(Continued from page 14)

from mid-February to mid-March but remain well above last spring. Strong demand for feed is expected to keep prices above the levels of a year earlier.

## Egg Prices Rise

Egg prices received by farmers in mid-March averaged 43.7 cents a dozen, 2.3 cents higher than in February and 12.1 cents higher than a year earlier.

Returns to farmers from sales of eggs are more favorable to farmers than a year ago. As a result, the number of chicks hatched this spring for laying flock replacement may be as great, or greater than, last spring.

## Ceilings for Soybeans

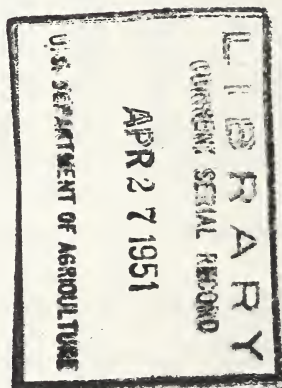
Soybeans are the first agricultural commodity for which price ceilings have been set at the farm level. They also are the first for which dollar-and-cents ceilings have been established at any marketing level. Specific price ceilings also have been set for soybean, cottonseed and corn oils, tallow and grease, vegetable shortening, and salad and cooking oils.

The ceiling price for a soybean producer is the ceiling price of the country elevator to which he usually delivers his beans minus elevator and handling charges.

## Bigger Strawberry Crop

More strawberries are likely to be produced this spring than last with acreages of both early and late spring crops up considerably. Cold storage holdings of strawberries also are up from last year. On February 23, they totaled more than 2½ times stocks on the same date of 1950. With supplies larger prices are expected to be lower than in the spring of 1950.

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